

*The determination of the propriety of a rejection based upon the scope of a claim relative to the scope of the enablement involves two stages of inquiry. The first is to determine how broad the claim is with respect to the disclosure. The entire claim must be considered. The second inquiry is to determine if one skilled in the art is enabled to make and use the entire scope of the claimed invention without undue experimentation.*

While the Examiner alleges the claim method does not include the essential starting compounds or reagents, it is noted that the claimed method comprises the step of fusing at least two non-identical photochromic sections to an aromatic structure. Thus, the claim sets forth an aromatic structure "selected from the group consisting of benzene, biphenyl, naphthalene, anthracene and phenanthrene" as a starting material. The claim also specifies that the photochromic sections are selected from the group consisting of oxazine and pyrans and, of which, at least one is not an indolino spiropyran. Thus, while the claims do not set forth specific compounds as starting materials, they do set forth classes of starting materials.

The Specification clearly enables one skilled in the art to make and use the entire scope of the claimed invention without undue experimentation. While the Examiner refers only to these specific examples on pages 8-10 of the Specification, the Examiner has ignored the disclosure at page 2, line 17, to page 8, line 2 of the Specification, at which several paths for synthesis of the invented compounds are described. In particular, several paths are shown diagrammatically at pages 3-5 and described more specifically from page 6, line 1, to page 8, line 2 of the Specification. This disclosure clearly enables one skilled in the art to make and use the claimed invention without undue experimentation. Accordingly, this claim is supported by an enabling disclosure under 35 USC §112, first paragraph.

The rejection under 35 USC §112, second paragraph, is likewise improper. Breadth of a claim is not to be equated with indefiniteness. In re Miller, 441 F.2d 689, 169 USPQ 598 (CCPA 1971); MPEP §2173.04. If the scope of the subject

matter embraced by the claims is clear (as it is here), and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 USC §112, second paragraph. MPEP § 2173.04. Accordingly, it is submitted that claim 5 is not indefinite under 35 USC §112, second paragraph.

Claim 5 stands rejected under 35 USC §102(b) as allegedly being anticipated by USP 4,818,096 to Heller et al.

The present invention relates to a method for producing a photochromic compound suitable for use as a single substance for photochromic tinting of a transparent article made of a plastic material, the tinted article having a neutral gray or brown color in the excited state. The method presently claimed comprises the step of fusing at least two non-identical photochromic sections to an aromatic structure. The at least two non-identical photochromic sections are selected so that the different absorption wavelengths of the excited photochromic sections give rise to a neutral gray or brown color in the plastic material, the photochromic sections being selected from the group consisting of oxazines and pyrans, of which at least one is not an indolino spiropyran. The aromatic structure is selected from the group consisting of benzene, biphenyl, naphthalene, anthracene and phenanthrene. The positions of fusion on the aromatic structure are directly adjacent to the oxygen atom of the pyran or the oxygen or nitrogen atom of the oxazine.

It should be noted that the Heller et al Patent has already been acknowledged in the introductory part ("Technical Field") given in the description. In this document, it is indicated how blue-purple colored pyrane compounds which absorb in the longer wavelength range, can be achieved. By a combination of these blue-purple pyranes with the already known yellow-orange colored pyranes having an absorption in the short wavelength range, a neutral-gray or brown color can be

gained in the excited state. This color is achieved by combination of two different "heliochrome" compounds, but not by combination of two different photochromic sections in one single molecule as presently claimed.

The double molecule compound 18 given in Example 8 of Heller et al, has two identical photochromic sections. Therefore, the absorption in the excited state is practically identical with that of the corresponding molecule having only one photochromic section; cf. Figures 1 and 2 of Heller et al. However, present claim 5 on file explicitly defines "two non-identical photochromic sections." This feature is not fulfilled by compound 18 given in Heller et al. the further compounds 15 and 16 addressed in the office action have only one photochromic section and thus are to be regarded as not relevant for the present case. Moreover, the formula III given in column 5 of Heller et al as well as that given in claim 10 does not teach that also not a fully symmetrical, i.e., an asymmetrical structure has been considered. Otherwise those of R and Z would have had to be named as R and R' and Z and Z', respectively. Further, by the synthesis given in Figure 12 and used in Example 8, only compounds with identical photochromic sections can be prepared.

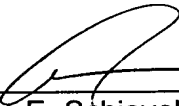
To sum up, the Heller et al patent neither discloses nor would have suggested the approach to unify two different photochromic sections in one single molecule. Further, no synthesis method to arrive at non-symmetrical bispyranes or pyrane-oxazine-systems has been described in Heller et al. Accordingly, claim 5 is patentable over Heller et al.

In view of the foregoing remarks, favorable reconsideration and allowance of claim 5 are requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the

filing of this paper, including Extension of Time fees, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Dep. Acct. No. 01-2135 (028.34242VC3), and please credit any excess fees to such deposit account.

Respectfully submitted,  
**ANTONELLI, TERRY, STOUT & KRAUS, LLP**

  
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